REMARKS

Claims 1-15 and 17 are pending in the application. Claims 1-8, 11-15 and 17 are rejected. Claims 9 and 10 are objected to, but would be allowable if rewritten in independent form. Claims 1, 2 and 4 are amended herein. A request for a two-month extension is submitted herewith to extend the period for reply to June 1, 2004, Monday, May 31, 2004 being a holiday.

Preliminary Matters

Applicant notes that typographical errors were introduced into claims 1 and 2 by the October 6, 2003 Amendment. While no rejection or mention of this was raised in the Office Aciton, these errors are corrected by this amendment. Specifically, "file" on line 4 of claim 1 has been changed back to "face" by this amendment. Applicant notes that the claim as originally filed used the term "face." On line 3 of claim 2, "his" has been changed back to "hits,." as originally filed.

Drawings

Reference number 15 is noted as missing from the drawings. Element number 15 has been added to Figure 1, as shown in the enclosed formal drawing Replacement Sheet.

Claim Rejections under 35 U.S.C. §112

Claims 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant traverses this rejection.

Applicant notes that claim 1 has been amended to recite "side walls" instead of "side plates," thereby making the rejection moot. Support can be found throughout the specification. No new matter is involved.

Claim Rejections under 35 U.S.C. §102(b)

Claims 1-7, 11, 13, 14-15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 3,685,291 (Fadden). Applicant traverses this rejection.

Applicant submits that the apparatus disclosed in Fadden operates on entirely different principles to Applicant's apparatus. In Applicant's apparatus, air is trapped in the trough between adjacent waves. As the waves move along the chamber, the volume of the trough reduces to compress the trapped air until it reaches the manifold and is released through the outlet port.

In Fadden, standing waves are created in the standing wave basin beneath the vertical chambers 50. Standing waves do not travel along the chamber and points on the surface of the standing waves merely oscillate vertically. Ambient air is admitted to each vertical chamber 50 from the intake manifold 60 as the water level beneath the chamber falls, and the air is compressed and then expelled to the exhaust manifold 66 as the water level rises. Fadden's abstract is a reasonable summary of the operation of Fadden and is commended to the Examiner. Fadden's and Applicant's system have very little in common.

With reference to claim 1, Applicant submits that Fadden does not teach a chamber having an inlet port at one end of the chamber adapted to face into a wavetrain and side walls

delivering compressed air to a manifold and thence to an outlet port. Instead, Fadden teaches that the motion of the standing waves in each of the vertical chambers 50 expel compressed air to an exhaust manifold 66. If the vertical chamber 50 is considered the chamber, then the inlet port of the vertical chamber 50, facing downward and perpendicular to the wavetrain, does not face into the wavetrain. Alternatively, if the wave reception channel 10 of Fadden is to be considered the chamber, then the side walls 22 of the chamber do not deliver compressed air, as the vertical chambers 50 receive ambient air through intake valves 56.

Applicant submits that claims 2-7, 11, 13 and 14-15 depend from claim 1 and are patentable at least by way of their dependency.

Furthermore, with respect to claim 2, Fadden does not teach that waves compress air in the wave troughs as each wave advances into the manifold. Regarding claim 7, the 'baffle' as asserted by the Examiner, is not adjacent to an end wall. With respect to claim 11, Applicant submits that the Office Action has not established that Fadden teaches a ramp. Claims 2, 7 and 11 are also patentable for at least these respective reasons.

Regarding claim 17, Applicant submits that Fadden does not teach a) a manifold at the end of the chamber remote from the inlet port, or b) a baffle in the manifold, or c) side plates whereby waves advancing horizontally through the chamber are induced to compress air in their troughs and deliver compressed air to the manifold and thence to the manifold outlet port.

Fadden does not have a manifold at the end of the chamber remote from the inlet port, does not have a baffle in the manifold and does not produce compression of air trapped in the troughs as the waves advance horizontally through the chamber. Quite simply, the waves of Fadden are standing waves that do not advance and indeed could not advance past the chambers

50 which would block traveling waves. For at least these reasons, claim 17 is not anticipated by Fadden.

Claim Rejections under 35 U.S.C. §103(a)

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 3,685,291 (Fadden). Applicant traverses this rejection.

Applicant submits that, in view of the above remarks, Fadden does not teach or suggest each of the limitations of claim 1, from which claims 8 and 12 depend. Claims 8 and 12 are patentable at least for this reason.

Furthermore, with respect to claim 8, Applicant notes that one of skill in the art would not be motivated to taper the 'baffle' of Fadden, as asserted by the Examiner, toward the inlet port. While Applicant disagrees, the Examiner has taken the position that the sides of the vertical chambers 50 are baffles. The standing waves of Fadden operate in the vertical chambers 50 to compress air. Destroying the vertical orientation of the vertical chambers 50 of Fadden would appear at least to reduce the effectiveness of the standing wave function within the vertical chambers 50 by inhibiting the standing wave's vertical travel upon contact with the tapered 'baffle.' This tapered 'baffle' may also prevent the creation of the standing wave by interfering with the vertical travel of the water. In view of the above, Applicant submits that Fadden does not make claim 8 obvious, and the rejection of claim 8 is improper and should be withdrawn.

Regarding claim 12, reciting that the angle of the ramp is adjustable, the Office Action has not shown that Fadden teaches or suggests a ramp at all. Therefore, Applicant submits that the rejection of claim 12 is improper and should be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

A reqeust for an extension is submitted herewith. However, if any additional fee is due, please charge our Deposit Account No. 12-0080, under Order No. HCM-019US from which the undersigned is authorized to draw.

Dated: June 1, 2004

Respectfully submitted,

By_____

David J. Rikkers
Registration No.: 43,882
LAHIVE & COCKFIELD, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (Fax)
Attorney For Applicant